Columbia CXFS Filesystems

Category: Columbia

Columbia CXFS filesystems (/nobackup[1-2][a-i]) are shared and accessible from cfe2 and Columbia21-24. This allows user jobs to be load-balanced across Columbia's systems without forcing users to move their data to a particular Columbia system.

Users will have a nobackup directory on one of these shared file systems. To find out where your nobackup directory is, log in to the front-end node and type the following shell command:

```
cfe2% ls -d /nobackup[1-2][a-i]/$USER
/nobackup1f/username/
```

In this example, the user is assigned to /nobackup1f.

Default Quota and Policy on /nobackup

Disk space and inodes quotas are enforced on the CXFS /nobackup[1-2][a-i] filesystems. The default soft and hard limits for inodes are 25,000 and 50,000, respectively. Those for disk space are 200GB and 400GB, respectively. To check your disk space and inodes usage and quotas on your CXFS filesystem, do the following:

```
cfe2% quota -v
Disk quotas for user username (uid xxxx):
     Filesystem  blocks   quota   limit   grace   files   quota   limit   grace
/dev/cxvm/nobackup1f
               1673856  210000000 420000000             10973   25000   50000
```

The NAS quota policy states that if you exceed the soft quota, an email will be sent to inform you of your current usage and how much of your grace period remains. It is expected that users will occasionally exceed their soft limit, as needed; however after 14 days, users who are still over their soft limit will have their batch queue access to Columbia disabled.

If you anticipate having a long-term need for higher quota limits, please send a justification via email to support@nas.nasa.gov. This will be reviewed by the HECC Deputy Project Manager for approval.

For more information, see also, Quota Policy on Disk Space and Files.

Important: Backup Policy

As the names suggest, these filesystems are not backed up, so any files that are removed *cannot* be restored. Essential data should be stored on Lou1-3 or onto other more permanent storage.

Accessing CXFS from Lou

The Columbia CXFS filesystems are also mounted on Lou1-3. This allows you to copy files between the CXFS filesystems and your Lou home filesystem, using the *cp* or *cxfscp* commands on Lou.

Article ID: 262
Last updated: 13 Apr, 2011
Computing at NAS -> Computing Hardware -> Columbia -> Columbia CXFS Filesystems
http://www.nas.nasa.gov/hecc/support/kb/entry/262/?ajax=1